

REMARKS

Claims 1, 9, 17, and 25 are cancelled; thus, claims 2-8, 10-16, 18-24, and 26-32 are all the claims pending in the application. Claims 1, 3-9, 11-17, 19-25, 27-32 stand rejected upon double patenting. Claims 25-32 stand rejected upon informalities. Claims 1-3, 5-11, 13-19, 21-27, and 29-32 stand rejected on prior art grounds. Claims 4, 12, 20, and 28 would be allowable if rewritten to overcome the double patenting rejection and objection. Applicants respectfully traverse these rejections based on the following discussion.

I. The Double Patenting Rejection

Claims 1, 3-9, 11-17, 19-25, 27-32 stand rejected on the ground of non-statutory obviousness-type double patenting. When the present application and/or the copending application is allowed, Applicants will file a terminal disclaimer in the allowed application in regards to the other application. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. The Prior Art Rejections

Claims 1-3, and 5-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crawley, et al. (U.S. Patent No. 5,995,503), hereinafter referred to as Crawley, in view of Lee, Jr., et al. (U.S. Patent No. 6,798,739), hereinafter referred to as Lee, Jr. Claims 9-11, 13-19, 21-27, and 29-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crawley, in view of Auerbach, et al. (U.S. Patent No. 5,355,371),

hereinafter referred to as Auerbach. Applicants respectfully traverse these rejections based on the following discussion.

The claimed invention provides a method that begins by encoding a distribution tree to produce an encoded distribution tree; and, creating a header including the encoded distribution tree. The header is added to a data packet to be distributed to the distribution tree. The method detects failed nodes down the distribution tree; and, modifies the header as the data packet is distributed down the distribution tree to pass the data packet around the failed node.

In the rejection, the Office Action argues that the prior art of record discloses many features of the claimed invention. However, Lee does not teach repairing a distribution tree by modifying a header in the data packet. Instead, Lee discloses that to repair the distribution tree, “the downstream subtree, or the node severed from the main multicast distribution tree (MDT), has to be re-attached to the main tree provided a loop is not formed in the process”. In addition, Auerbach does not teach removing a failed node or passing a data packet around a failed tree extension. Instead, Auerbach removes “Transport Users” “if an attempted extension of the tree fails”. Therefore, as explained in greater detail below, Applicants respectfully submit that the prior art of record does not teach or suggest the claimed invention.

Applicants traverse the rejections because the prior art of record fails to teach or suggest the claimed features of “modifying said header as said data packet is distributed down said distribution tree to repair said distribution tree” as defined in independent claim 4.

The Office Action argues that such features are taught by Lee; however, Lee does not teach repairing a distribution tree by modifying a header in the data packet. Instead, Lee discloses that to repair the distribution tree, “the downstream subtree, or the node severed from the main multicast distribution tree (MDT), has to be re-attached to the main tree provided a loop is not formed in the process” (col. 3, lines 18-21). Furthermore, Lee does not teach modifying headers in the datapacket.

Thus, Applicants submit that the proposed combination of Crawley and Lee would not have resulted in the claimed invention. Moreover, Applicants submit that the “advertisement” of Crawley is not a header. As such, the “ERA” of Crawley does not teach the “header” of the claimed invention.

Accordingly, Applicants submit that Lee does not teach repairing a distribution tree by modifying a header in the data packet. Instead, Lee discloses that to repair the distribution tree, “the downstream subtree, or the node severed from the main multicast distribution tree (MDT), has to be re-attached to the main tree provided a loop is not formed in the process”. Therefore, it is Applicants’ position that the proposed combination of Lee and Crawley does not teach or suggest the claimed features of “modifying said header as said data packet is distributed down said distribution tree to repair said distribution tree” as defined in independent claim 4.

In addition, the prior art of record fails to teach or suggest the claimed features of “modifying said header as said data packet is distributed down said distribution tree to

skip said failed node and remove said failed node from said encoded distribution tree” as defined in independent claims 12 and 28.

Applicants submit that Auerbach does not teach removing a failed node; instead, Auerbach removes “Transport Users” “if an attempted extension of the tree fails” (Auerbach, col. 10, lines 18-33). However, the “Transport Users” are not failed nodes. Instead, as described in col. 4, lines 25-28, of Auerbach, “[t]he control function code operating as a Set Manager acts on behalf of various Transport Users (TUs) located in or served by the particular node at which the Set Manager resides”.

Furthermore, nothing within Auerbach teaches modifying a header of the data packet to remove a failed node (or remove a “Transport User”). In addition, “if an attempted extension of the tree fails”, Auerbach does not remove the “attempted extension of the tree”. In the claimed invention, if a node fails, the failed node is removed.

Accordingly, Applicants submit that Auerbach does not teach removing a failed node; instead, Auerbach removes “Transport Users” “if an attempted extension of the tree fails”. Therefore, it is Applicants’ position that the proposed combination of Auerbach and Crawley fails to teach or suggest the claimed features of “modifying said header as said data packet is distributed down said distribution tree to skip said failed node and remove said failed node from said encoded distribution tree” as defined in independent claims 12 and 28.

In addition, the prior art of record fails to teach or suggest the claimed features of “modifying said header as said data packet is distributed down said distribution tree to pass said data packet around said failed node” as defined in independent claim 20.

First of all, the Office Action does not argue that this feature is taught by the prior art. As discussed above, Auerbach discloses removing “Transport Users” “if an attempted extension of the tree fails” (Auerbach, col. 10, lines 18-33). However, nothing within Auerbach teaches passing a data packet around a failed tree extension. Moreover, nothing within Auerbach teaches passing a “Transport User” around a failed tree extension.

Accordingly, Applicants submit that Auerbach does not pass a data packet around a failed tree extension. Instead, Auerbach discloses removing “Transport Users” “if an attempted extension of the tree fails”. Therefore, it is Applicants position that the prior art of record fails to teach or suggest the claimed features of “modifying said header as said data packet is distributed down said distribution tree to pass said data packet around said failed node” as defined in independent claim 20.

Therefore, it is Applicants’ position that the prior art of record does not teach or suggest many features defined by independent claims 4, 12, 20, and 28 and that such claims are patentable over the prior art of record. Further, it is Applicants’ position that dependent claims 2-3, 5-8, 10-11, 13-16, 18-19, 21-24, 26-27, and 29-32 are similarly patentable, not only because of their dependency from a patentable independent claims, but also because of the additional features of the invention they defined. In view of the

foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

II. Formal Matters and Conclusion

With respect to the rejections to the claims, the claims have been amended, above, to overcome these rejections. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

In view of the foregoing, Applicants submit that claims 2-8, 10-16, 18-24, and 26-32, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 50-0510.

Respectfully submitted,

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